Figure 1

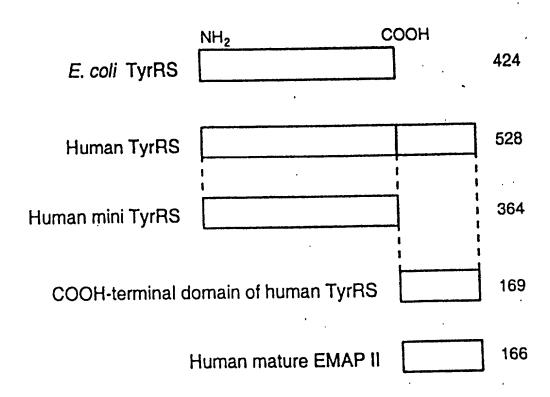


Figure 2

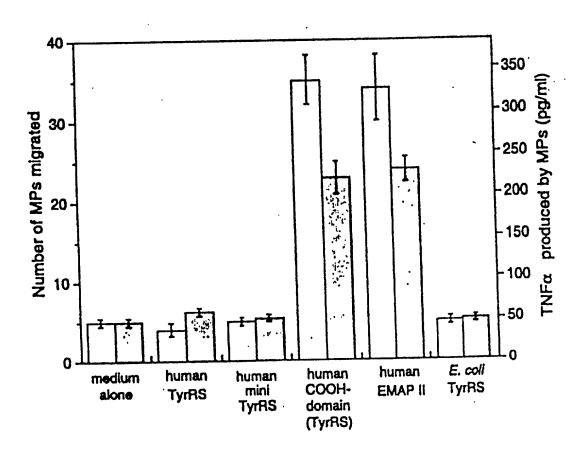


Figure 3

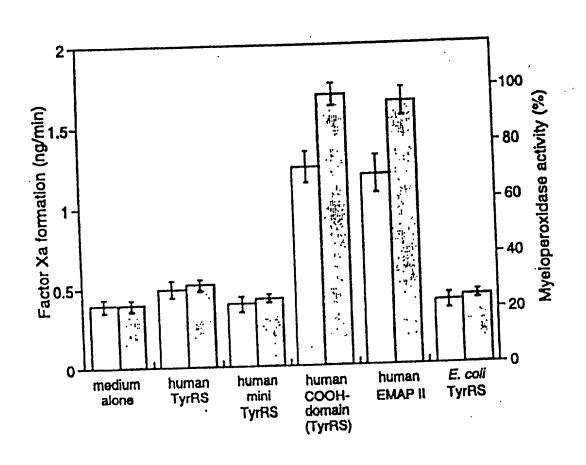


Figure 4

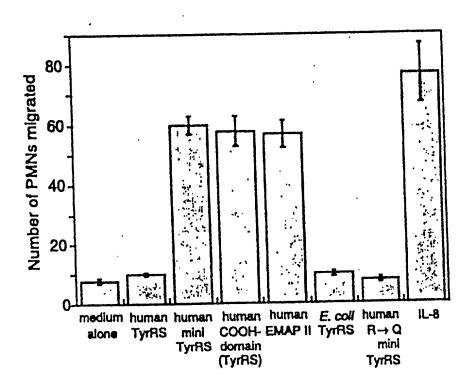


Figure 5

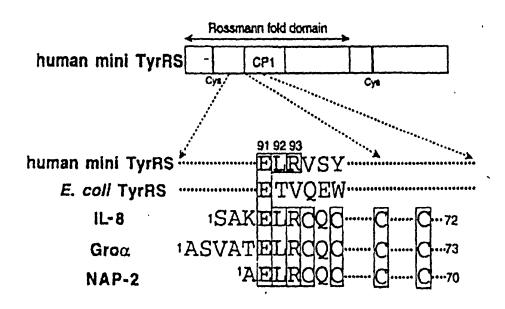


Figure 6

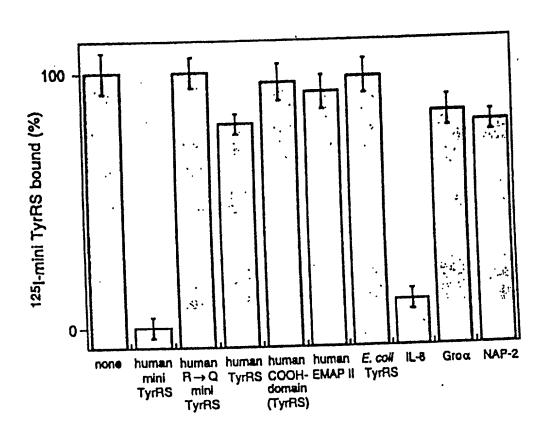


Figure 7

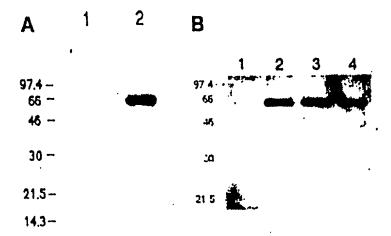


Figure 8

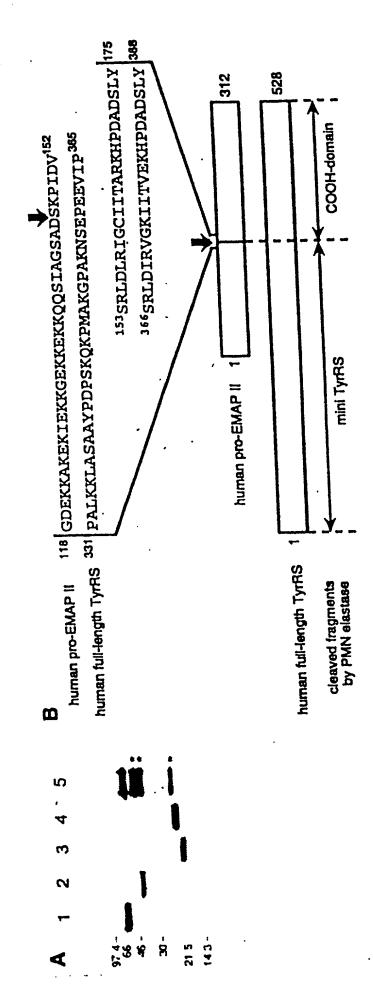


Figure 9

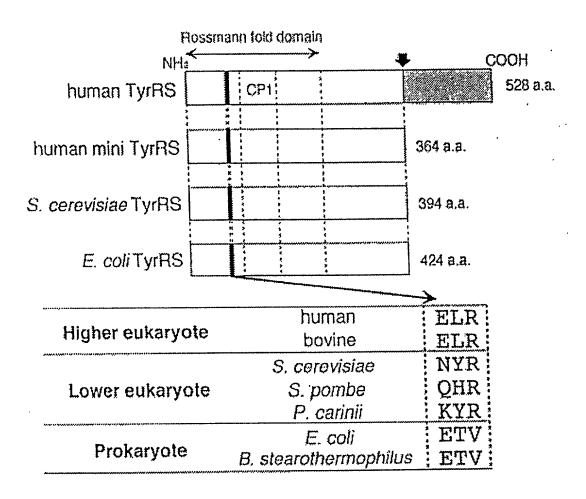


Figure 10

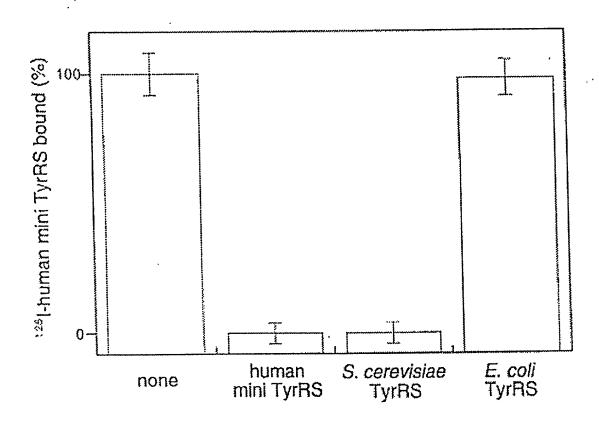


Figure 11

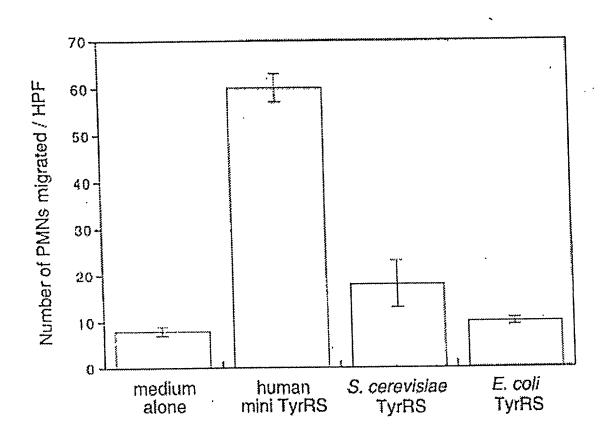


Figure 12

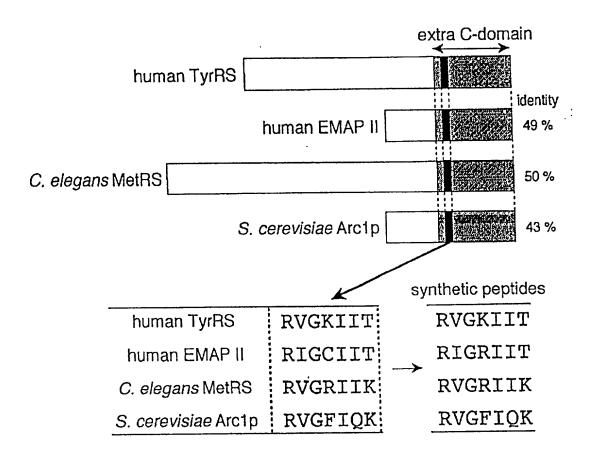


Figure 13

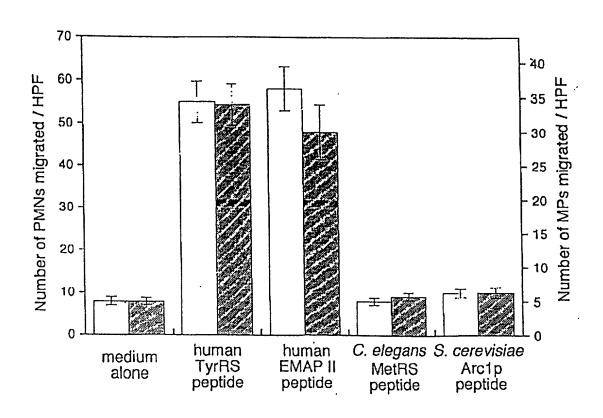
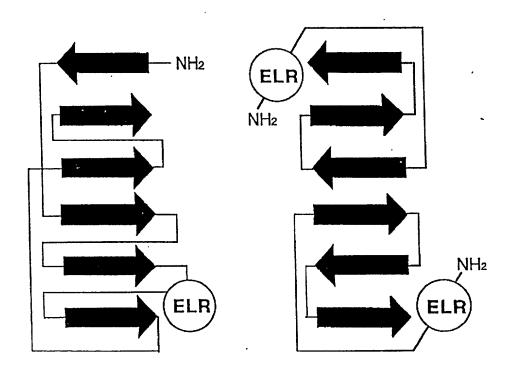
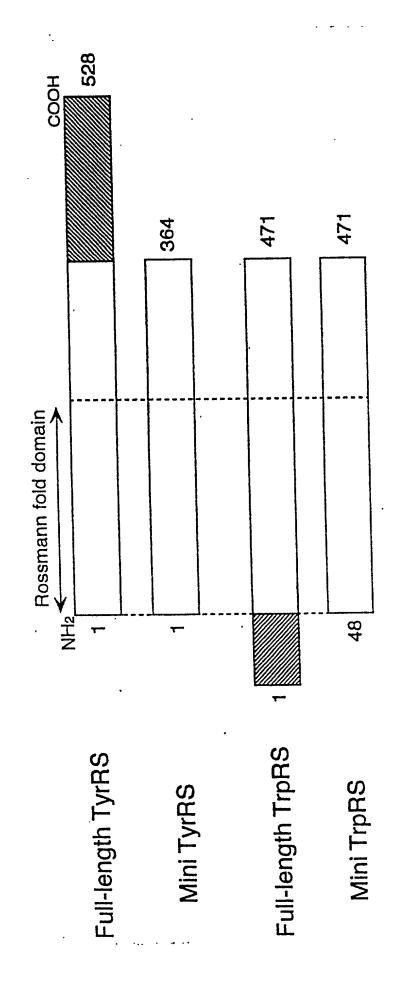


Figure 14



human mini TyrRS α -chemokines

Figure 15



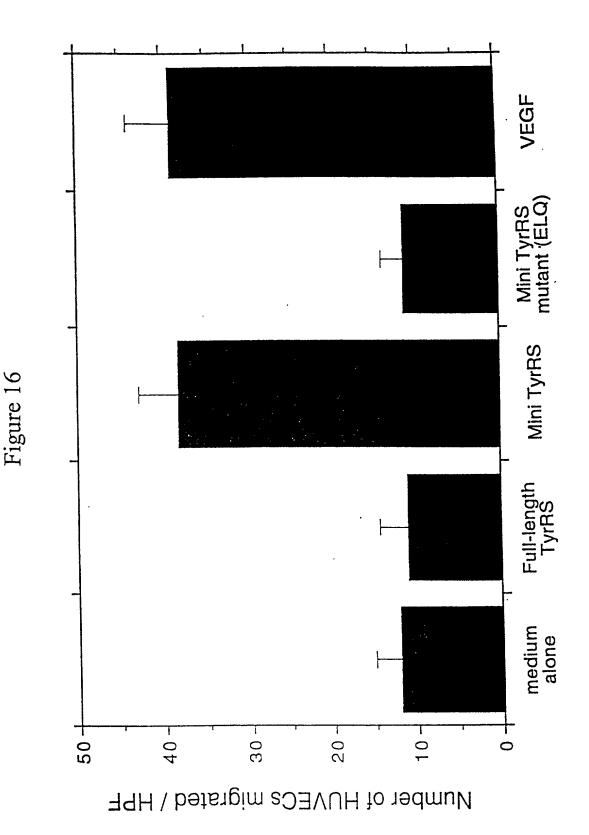


Figure 17

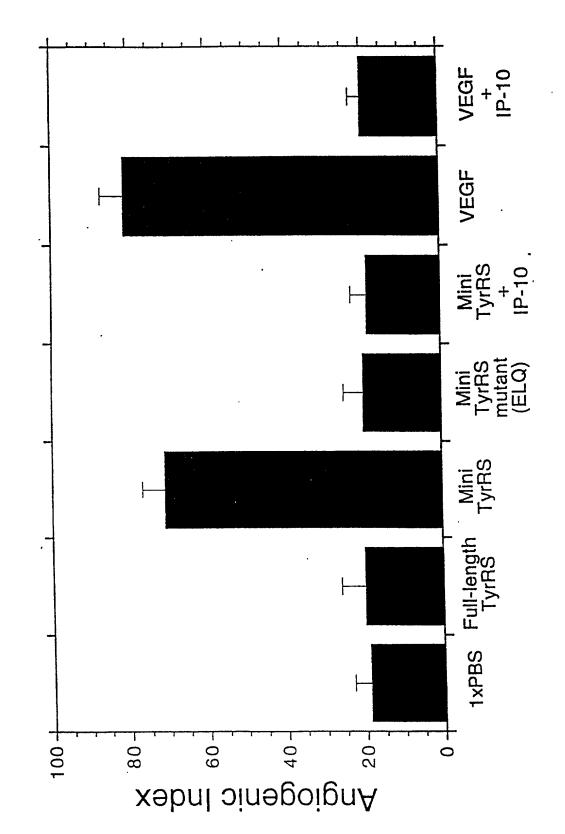
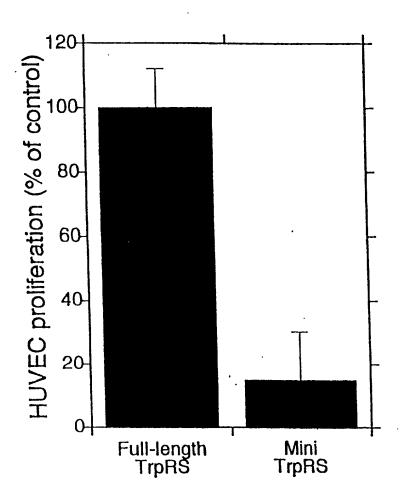
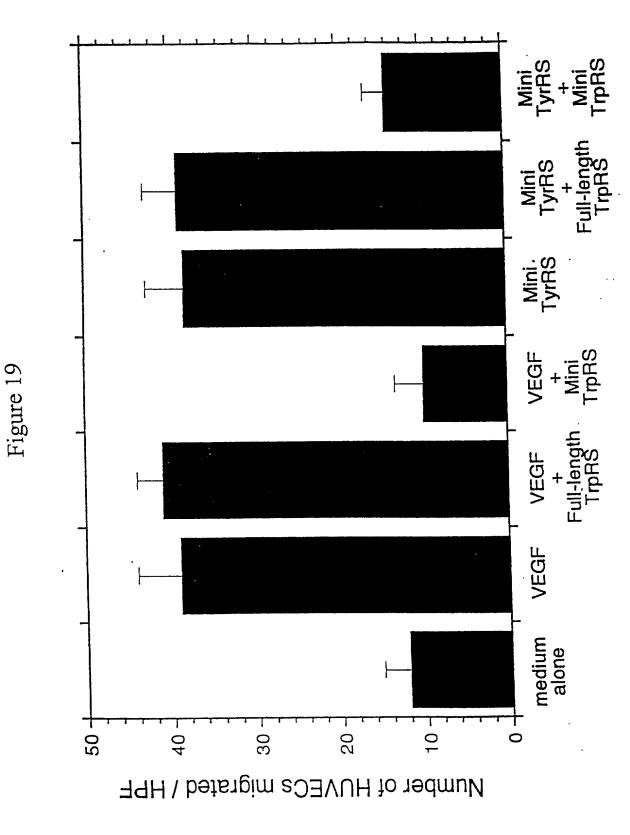


Figure 18





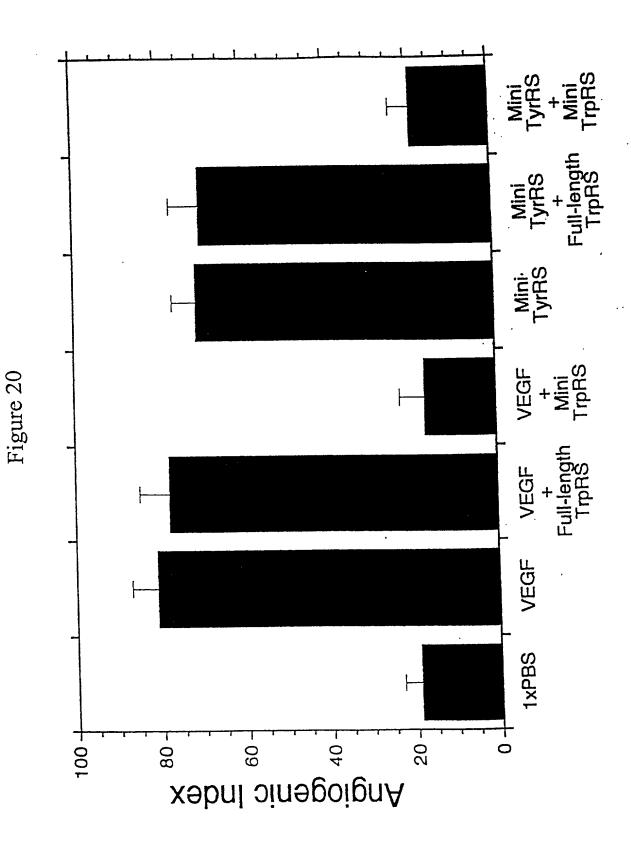
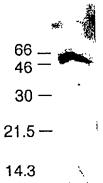
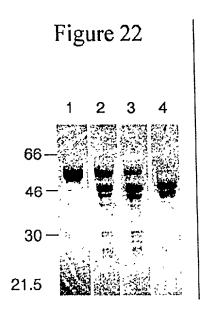
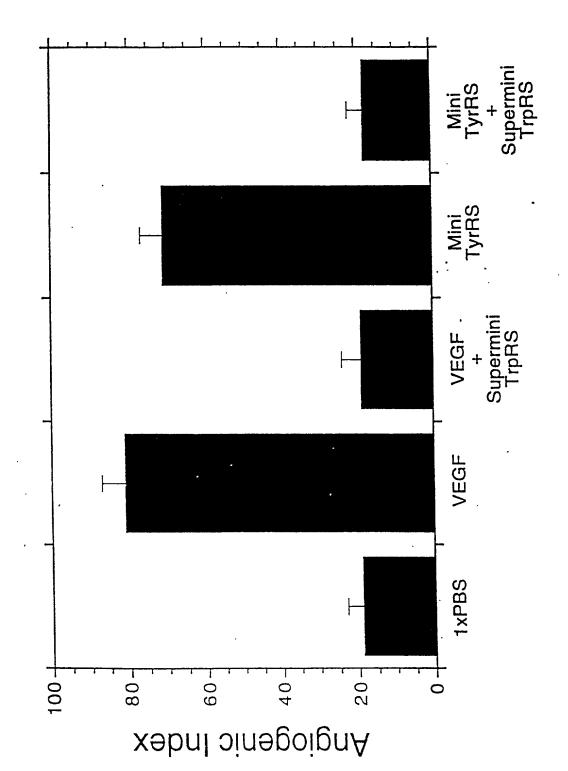


Figure 21









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Mini TrpRS Supermini TrpRS	48 MSYKAAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTV 80 42 MSYKAAMGEEYKAGCPPGNPTAGRNCDSDATKASEDFVDPWTV 84 42 TSYKEAMGEDYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTV 84 42 TSYKEAMGEDYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTV 84 406 1 SYQGRIPYPRPGTCPGGAFTPNMRTTKEFPDDVVTFIRNHPL 406 * * * * *	Minor TrpRS fragment 91 QTSSAKGIDYDKLIVRFGSS-KIDKELINRIERATGORPHHFL 86 QTSSAKGIDYDKLIVQPGSS-KIDKELINRIERATGORPHRFL 85 RTSSAKGIDYDKLIVQPGSS-KIDKELINRIERATGORPHRFL 85 RTSSAKGIDYDKLIVQFGSS-KIDKELVNRIERATGORPHRFL 86 QTSSAKGIDYDKLIVQFGSS-KIDKELVNRIERATGORPHRFL 87 ATSSAKGIDYDKLIVQFGSS-KIDKELVNRIERATGORPHRFL 88 RTSSAKGIDYDKLIVQFGSS-KIDKELVNRIERATGORPHRFL 89 ATSSAKGIDYDKLIVRIGTDYKYTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKYTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKYTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKYTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKYTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVDRVNAADGRYHVLFL 80 ATSSAKGIDYBKLIVRIGTDYKTKIAVGRYHVLFL	Rossmann fold domain	Supermini TrpRS AAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTVQTSSAKG AAAGEDYKVDCPPGDPAPESGEGLDATEADEDFVDPWTVQTSSAKG AAAGEDYKADCPPGNPTAGRNCDSDATKASEDFVDPWTVRTSSAKG AAAGEDYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTVRTSSAKG BAMGEYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTVRTSSAKG AAAGEDYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTVRTSSAKG BAMGEDYKADCPPGNSTPDSHGDPEAVDDKEDFVDPWTVRTSSAKG AAAGEDFKVDIPETHGGEGYEDEIDDEYEGDWSNSSSSTSG AAAGEDFKVDIPETHGGEGYEDEIDDEYEGDWSNSSSSTSG AAAAGEDFKVDIPETHGGEGYEDEIDDEYEGDWSNSSSSTSG AAAAAGEDFKVDIPETHGGEGYEDEIDDEYEGDWSNSSSSTSG AAAAAGEDFKADAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
2	human TrpRS bovine TrpRS mouse TrpRS rabbit TrpRS human semaphorin-E mouse semaphorin-E	Figure 24	Mammalian Full-length TrpRS	human TrpRS bovine TrpRS mouse TrpRS rabbit TrpRS mouse neuropilin-2

Figure 25

